REMARKS

Claims 13, 21-22, and 27 remain in this application, claims 1-12, 14-20, 23-26, and 28-32 are now canceled, and new claims 33-53 are added above. Reconsideration of the application is requested.

One object of the present invention is to provide a device and a method by way of which a position, an orientation, or both a position and an orientation of an eye can be determined rapidly and precisely. As noted, for example, in the paragraph set forth in lines 1-7 on page 4 of the substitute specification, devices or methods according to the invention for determining the position and/or the orientation of an eye are based on the fact that a light signal reflected by a part of the eye is detected by a detector system and analyzed. As discussed in the paragraph set forth in lines 7-10 on page 5 of the substitute specification, an embodiment of a device or a method according to the present invention can combine various characteristics described in "chapters" 1 to 4 of the description. The portions of the specification identified throughout the text thereof as chapters 4.1, 4.2, and 5.3 teach eye characteristic detection and analysis used with the embodiments of the invention. The use of a projection light guiding arrangement and an orientation determining device, for example, is taught in chapters 3.3.3 and 3.5. As the use of a "flying spot" procedure is optional, this characteristic is no longer reflected in claim 13 or claim 27. An embodiment of the invention as reflected in new claims 49 to 53, which uses an environment and an environment reflex image, is described, for example, in the portion of the substitute specification set forth from line 26 on page 79 to line 10 on page 80 of the substitute specification, as well as portions of the substitute specification

relating to chapters 4.3.3 and so on, beginning at line 11 on page 36 of the substitute specification. Furthermore, the portion of the specification identified as chapter 5.5 discusses projection of perceivable information in correlation with the determined orientation of the eye, to which claims 38 and 52 relate.

Independent claim 13, independent claim 27, and the remaining, dependent claims previously set forth in this application were rejected under 35 U.S.C. § 102(b) as anticipated by international publication WO 99/42315 to Eberl et al. Reconsideration is requested.

The Eberl et al. ('315) document discloses a method for controlling operating systems by way of image information. According to the Eberl et al. ('315) method, an object or a scene is seen by a human eye, and the reflected retinal image is detected during a scanning process for obtaining image information. The information is evaluated and compared with stored data.

It is respectfully submitted that the disclosure provided by the Eberl et al. ('315) document fails to suggest the use of an orientation determining device for determining the orientation of the device relative to the environment as now specified in claim 13. As described, for example, in the paragraphs set out in lines 8-25 on page 4 of the substitute specification, the position and/or orientation of an eye can be determined relative to the device (relative position) or relative to the environment (absolute position). In the knowledge of the position and/or orientation of the device relative to the environment, which is determined by means of an orientation determining device, such as a laser triangulation arrangement, a radar, or a GPS receiver, both relative and absolute positions can be unambiguously converted to one another according to

the rules of kinematics. Furthermore, a determined position and/or orientation of the eye relative to the environment can be advantageously updated when the orientation determining device determines a change of the orientation of the device relative to the environment while the orientation of the eye relative to the device is unchanged.

If it is presumed that the purpose of the Eberl et al. ('315) arrangement is to identify which of a stored set of control switches, for example, is present in a currently detected reflex image of an eye, seen by user, there is no particular intention, in the Eberl et al. ('315) arrangement, to know the orientation of the device with regard to the environment. Accordingly, the use of an orientation determining device for determining the orientation of the device according to the present invention with regard to the environment would not have been obvious to a person skilled in the art, and it is respectfully submitted that the device as defined by claim 13 above is both new and non-obvious relative to the disclosure provided by the Eberl ('315) document relied on. The same arguments apply equally to independent claim 27.

Referring now to claim 49, the Eberl ('315) document fails to teach the use of a camera to capture an environment image for correlation with an environmental reflex image for determining the orientation of the eye relative to the environment. The Eberl et al. ('315) disclosure, instead, teaches analysis of the reflex image captured by a user's eyes. This environmental reflex image is then compared to stored data. By contrast, a device according to the present invention is able to determine the position, the orientation, or both the position and the orientation of an eye, in an unknown environment, by correlating the

environment image and the environment reflex image, and, in particular, by pattern identification. Previously stored data is therefore not required. Also, the present invention enables provision of additional information to the user by projecting perceivable information into the eye. With regard to this aspect, the Eberl et al. ('315) document does disclose projecting a processed, improved environment reflex image back onto the eye; advantageously, however, the present invention enables the use of a more focused and/or luminous environment image, rather than the relatively blurry and/or low-light environment reflex image for back projection. The environment image can be processed in an appropriate manner and, while utilizing the determined orientation of the eye, can be projected into the eye such that it appears congruent with the actually perceived image to provide additional information (see chapter 5.5). Apart from a better environment image quality, it is also possible to provide additional information to the user, which information would not be extractable from an environment reflex image. If, for example, the environment camera is also sensitive in the infrared range, the infrared portion of the image can be processed into a perceivable image and be projected into the eye. It is thus possible to provide additional information to the user.

For reasons discussed, it is respectfully submitted that each of independent claims 13, 27, and 49 above is patentable. All other claims now in this application are dependent claims and should be patentable as well, and the application, as a whole, should now be allowable.

If there are any questions regarding this Reply or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an extension of time sufficient to effect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323, Docket No. 105743.56306US.

Respectfully submitted,

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